

# TOSHIBA



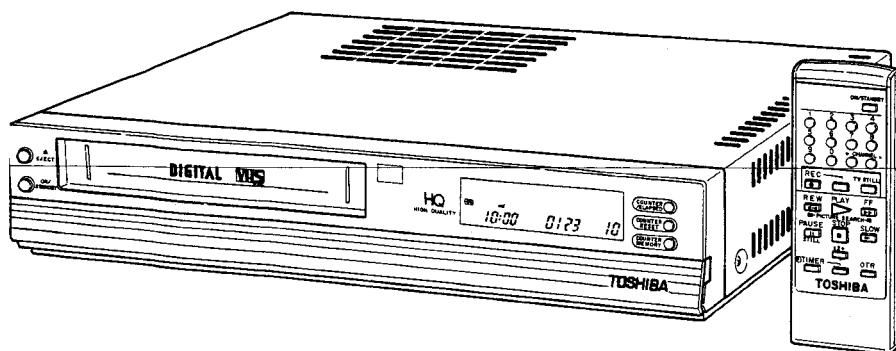
V08724

## VIDEO CASSETTE RECORDER MAGNETOSCOPE A CASSETTE VIDEOGRABADORA

OWNER'S MANUAL  
MODE D'EMPLOI  
MANUAL DEL PROPIETARIO



# DV-90W



# DIGITAL

ENGLISH .....	1 ~ 26
FRANÇAIS .....	27 ~ 52
ESPAÑOL .....	53 ~ 78

Thank you for purchasing this Colour Video Cassette Recorder. This unit is based on the VHS system for full home video entertainment. With this VTR you can record a TV programme while you are watching it, record one programme while watching another and, with the 21 day-4 programme timer, record programmes when you are not at home. Its built-in tuner and recording circuitry lets you record PAL and SECAM B/G broadcasts.

Detailed instructions found in this booklet offer complete instructions for connection, as well as detailed descriptions for the use of all controls.

Record the Model and Serial Nos. located at the rear of your video cassette recorder in the spaces provided below.

Model No. \_\_\_\_\_ Serial No. \_\_\_\_\_

**Remember, to obtain the best performance and lasting satisfaction from your VTR:**  
see that it is properly installed with an adequate aerial system;  
have it regularly maintained by a qualified technical organisation;  
ensure that it is correctly used by all the family.

**ABOVE ALL:**

Never let children push anything into holes or slots in the case – this could result in an electric shock.

Never guess or take a chance with your VTR -it is better to be safe than sorry!

This apparatus has been produced to comply with "Directive No. 82/499/EEC"

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**About this Manual**

This manual is divided into seven sections. **Sections I to IV** explain the basic operation of the VTR. Be sure to read the "Precautions" in **Section I** for proper and long-lasting use of your VTR. By reading **Section II's** Identification of Controls, **Section III's** Preparation, and **Section IV's** Basic Operation, you will master the basic operation of the VTR.

After adequately mastering basic operation of the VTR, proceed to **Sections V and VI** to learn more advanced operations for further VTR enjoyment. **Section V** explains remote control operation, and **Section VI** explains how to do timer recordings.

**Section VII** contains General Information. It explains how to check your VTR according to the troubleshooting table, which describes possible VTR problems, and their solution.

# PRECAUTIONS

- Should any liquid or solid object fall into the cabinet, unplug the VTR and have it checked by a Toshiba Authorized Service Agent before operating it any further. Condensation (dew) may occur if the VTR is subject to extreme temperature changes such as when it is moved from a very cold environment to a very warm room. Normal operation can be resumed when the condensation has evaporated.
- Since the condensation prevention circuit cannot evaporate existing moisture immediately after the power lead has been plugged into the AC outlet, you must allow about two hours if the recorder is to be used in such areas where condensation may occur. The heater circuit operates regardless of the setting of the ON or STANDBY.
- Do not install the VTR in a location near heat sources, such as radiators or air ducts, or in a place subject to direct sunlight, excessive dust, mechanical vibration or shock.
- Allow adequate air circulation to prevent internal heat build-up. Do not place the VTR on soft surfaces (rugs, blankets, etc.) or too near materials (curtains, draperies).
- Keep the VTR and the video cassettes away from strong magnetic fields.
- To disconnect the lead, pull it out by the plug. Never pull the lead itself.
- Do not drop any inflammable or metallic objects or liquid into the inside of the VTR. This may cause damage to the set.
- Do not hit or shake the set when moving it. This may cause damage.
- Connect the AERIAL OUTPUT plug on the VTR and the AERIAL socket of a TV receiver as instructed in "AERIAL CONNECTION".  
Never connect the output of the VTR to an aerial or make simultaneous (parallel) aerial and VTR connections at the aerial terminals of your receiver.
- After playing a tape, remove the cassette from the VTR if it is not to be used for any length of time.
- Save the original carton and packing materials: they will come in handy if you ever have to transport your VTR. For maximum protection, repack the set as it was originally packed at the factory.
- Before installing your new VTR, remove the clear plastic protective coating from the outside of the case. This coating simply peels off.

HQ

HIGH QUALITY

HQ VHS is compatible with existing VHS equipment.

Only cassette marked "VHS" can be used with video cassette recorder.

## WARNING:

TO PREVENT FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE. DANGEROUSLY HIGH VOLTAGES ARE PRESENT INSIDE THE MACHINE. DO NOT OPEN THE CABINET. REFER SERVICING TO QUALIFIED PERSONNEL ONLY.

The ON/STANDBY button does not completely shut off mains power from the unit, but switches operating current on and off.

## NOTE:

The rating plate and the safety caution are on the rear of the unit.

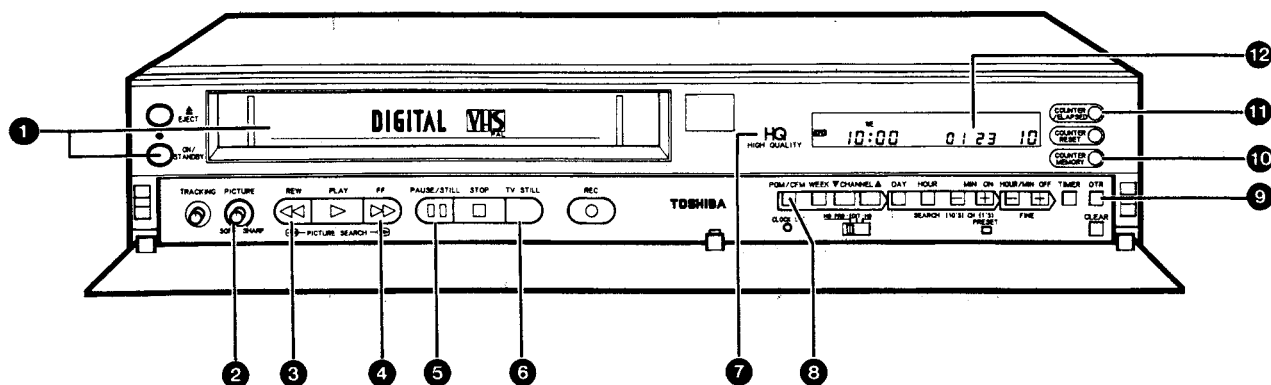
## WARNING:

1. This recorder can also receive colour television signals in East Germany (DDR) for recording and playback.
2. Recordings made of DDR television signals produce monochrome pictures if played back on another video recorder of PAL or SECAM standard.
3. SECAM prerecorded cassettes or recordings made with a SECAM video recorder produce monochrome pictures when played back with this recorder.
4. This recorder cannot be used in France. Use a SECAM recorder to record French SECAM signals.

## IMPORTANT:

It is permissible to record television programmes only in the event that third party copyrights and other rights are not violated.

# FEATURES



## 1 Auto Power On and Fully-Automatic Play Function

Even when the VTR unit is off, it will turn on automatically and then start playing when a video cassette without safety tab is inserted.

## 2 Picture Control

This control allows you to select a softer or sharper picture.

## 3 Reverse Picture Search

Pressing the REW button in the playback mode allows you to play the tape quickly in the reverse direction about 7 times the normal speed and find the part you want to review.

## 4 Forward Picture Search

Pressing the FF button in the playback mode allows you to play the tape quickly in the forward direction about 7 times the normal speed and find the part you want.

## 5 Digital Still Picture

The picture stops perfectly on the screen during playback thanks to the newly-developed digital circuitry.

## 6 TV Still Picture

Through the newly-developed digital circuitry, the TV programme picked up by the tuner can be viewed in still mode without noise and blur.

## 7 High Quality Picture

The HQ (High Quality) feature reduces the noise of the brightness and colour signals. Image outline and detail are improved.

## 8 Programme Check

By pressing this button in the timer mode, the contents of the programme will be displayed consecutively on the fluorescent display. A great convenience for programming.

## 9 One Touch Timer Recording

This button can be pressed while in any mode to start immediate recording. The unit will record in periods of 30 minutes each time the button is pressed. The recording can be as long as 4 hours.

## 10 Memory Function

When the memory function is on, the tape stops at a counter reading of about "0000".

## 11 Counter Memory and Elapsed Functions

This button is used for two different operations.

The one is the counter function, the other is the elapsed time function.

The elapsed time function tells you how long you have been recording a tape.

## 12 Multifunctional Fluorescent Display

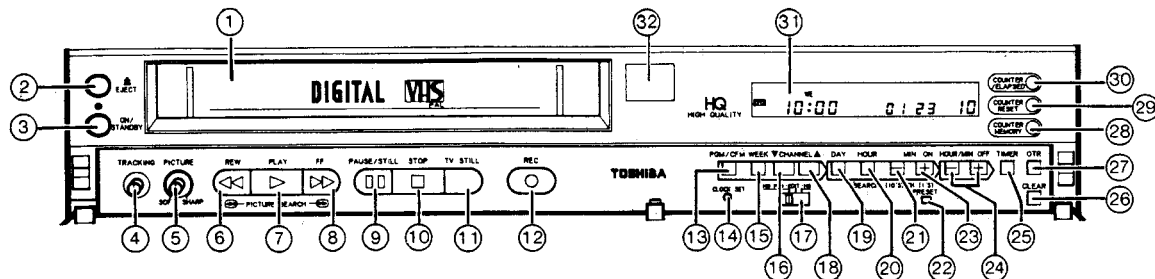
### Advanced Timer Function

The Upgraded timer function can be operated for 4 events. There is also a 21-day 4-programme setting.

### FS (Frequency Synthesized) Tuner

This FS tuner automatically selects with the utmost accuracy, all receivable channels.

# FRONT PANEL



## FRONT PANEL

### ① Cassette Compartment

Slide the cassette into the unit until the mechanism draws it in automatically.

### ② EJECT button (See page 12)

Press this button to remove the cassette while the power is on.

### ③ ON/STANDBY button

This button is used to turn the VTR on and off.

### ④ TRACKING control (See page 14)

Use this control during playback to adjust the picture and eliminate or reduce noise.

### ⑤ PICTURE control (See page 14)

To make the picture sharper, turn the control clockwise; to make the picture softer, turn the control counterclockwise.

### ⑥ Rewind button (REW) (See pages 14 and 18)

Press this button to rewind tapes. During the playback mode, pressing this button will allow you to play tapes in reverse rapidly.

### ⑦ PLAY button (See pages 14 and 18)

Press this button to play back the pre-recorded cassettes.

The PLAY indicator comes on.

### ⑧ Fast forward button (FF) (See page 18)

Press this button to move tapes forward rapidly. During the playback mode, pressing this button will allow you to play tapes in the forward direction rapidly.

### ⑨ PAUSE/STILL button (See page 18)

Used to operate the VTR in two different ways:

A) To temporarily stop the tape in the recording mode.

B) To view a digital still picture with no noise or blur in the playback mode.

### ⑩ STOP button (See page 14)

Press this button to stop the tape or interrupt the fully-automatic function.

### ⑪ TV STILL button (See page 13)

Use this button to freeze a picture received through the VTR tuner in the stop mode.

### ⑫ Record button (REC) (See page 15)

Press to start recording. The REC indicator comes on.

### ⑬ PGM/CFM button (See pages 20 and 21)

This button has two functions:

Programme number selection and programmed data check.

Used to start timer operation and specify programme numbers 1 through 4 where the programme data is placed.

Also used to check the previously inputted programme data. Once this button is pressed, the programme scanning starts to continuously show the contents of the programme data 1 through 4 (start time and end time) on the fluorescent display.

### ⑭ CLOCK SET button (See page 11)

Used to set or reset the VTR clock. When this button is pressed once, the unit enters the clock set mode. When the button is pressed again after adjusting the VTR clock, the VTR clock starts to work.

### ⑮ WEEK button (See page 20)

Used to select the timer programmes for one day of the next week, one day of the third week and one day of every week.

### ⑯ Channel select button (down)

Used to select the specific channel which you wish to view or record. When the button is pressed once, the channel digit decreases by one.

### ⑰ HQ PRO/EDIT/HQ switch

HQ PRO: When recording in this position, enabling a distinct picture for recording and playback. We recommend this position for recording.

HQ: For recording in an area where the broadcast is weak, this position may improve picture quality. Also, when snow occurs during playback, set to this position.

EDIT: Set in this position when copying.

### ⑱ Channel select button (up)

Used to select the specific channel which you wish to view or record. When the button is pressed once, the channel digit increases by one.

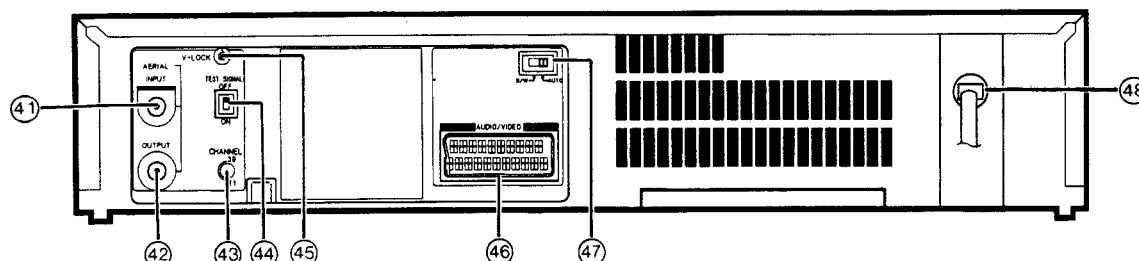
### ⑲ DAY button (See pages 11 and 20)

Used to specify the day. When the button is pressed once, the day of the week advances by one. When the button is kept pressed down, the days advance rapidly. Also used to select the programme for every day.

### ⑳ HOUR button or SEARCH button (See pages 10, 11 and 20)

Used to specify the hour digits. When the button is pressed once, the digit increases by one. When the button is kept pressed down, the hours change rapidly. Also used to search for the desired channel during channel presetting operation.

# REAR PANEL



**21 MIN (–) button or channel 10's button (See pages 10, 11 and 20)**

Used to specify the minutes. When the button is pressed once, the digit decreases by one. When the button is kept pressed down, the minutes decrease rapidly. Also used to directly select the channel to be preset. When the button is pressed once, the channel changes by 10's digit.

**22 PRESET button (See page 10)**

Used to preset the channel.

**23 MIN (+) button or channel 1's button (See pages 10, 11 and 20)**

Used to specify the minutes. When the button is pressed once, the digit increases by one. When the button is kept pressed, the minutes increase rapidly. Also used to directly select the channel to be preset. When the button is pressed once, the channel changes by 1's digit.

**24 HOUR/MIN button or FINE (–)/(+) button (See pages 10 and 20)**

Used to set the hour and minutes of your recording end time. When the button (+) is pressed once, the end time display increases by one minute. When the button (–) is pressed once, the end time display decreases by one minute. When the button is kept pressed down, the minutes increase or decrease rapidly according to the button actually pressed. Also used to make fine adjustment during channel operation.

**25 TIMER button (See page 20)**

Used to enter the timer mode. To release the timer stand-by mode, press it again.

**26 CLEAR button (See page 21)**

Used to cancel the data that was preset to the programme numbers 1 through 4. Select the programme number where the preset data is to be cancelled with the PGM/CFM button, press the CLEAR button.

**27 OTR button (See page 22)**

Used to carry out recording in units of 30 minutes in normal mode. (Up to 4 hours)

Used to specify the timer-off time in units of 30 minutes in the timer mode.

**28 COUNTER MEMORY button (See page 16)**

When the button is pressed the indicator "M" is displayed and the tape stops at a counter reading of about 0000 during rewinding and fast forward modes.

**29 COUNTER RESET button (See page 16)**

By beginning the recording at "0000", subsequent playback will be more convenient.

Pressing this button in the counter mode will reset the tape counter to "0000".

Also used to reset the elapsed time display to "0:00".

**30 COUNTER/ELAPSED button (See page 16)**

Used to change the display from counter to elapsed time display or from elapsed time to counter display. The elapsed time function is available only in the recording mode.

**31 Fluorescent display**

Refer to page 7.

**32 Infrared remote control receiver (See page 17)**

This sensor is used for receiving infrared signals from the Remote Control Unit.

## REAR PANEL

**41 AERIAL INPUT socket**

Connect the aerial lead to this terminal.

**42 AERIAL OUT plug**

Connect this terminal to the socket on the TV.

**43 UHF CHANNEL control (See page 9)**

The output from the VTR to your television receiver can be adjusted to any channel from 31 to 39 by using a screwdriver.

**44 TEST SIGNAL switch (See page 9)**

Provides a test signal to assist you to tune your television receiver to the output of the VTR.

**45 V-LOCK control**

The playback picture may be distorted depending on the TV's used for two times playback. Adjust this control to minimum when the picture jitters vertically in the two times playback mode.

**46 AUDIO/VIDEO connector**

This 21 pin euro-connector is used to receive audio and video signals from the external source with the same type of socket.

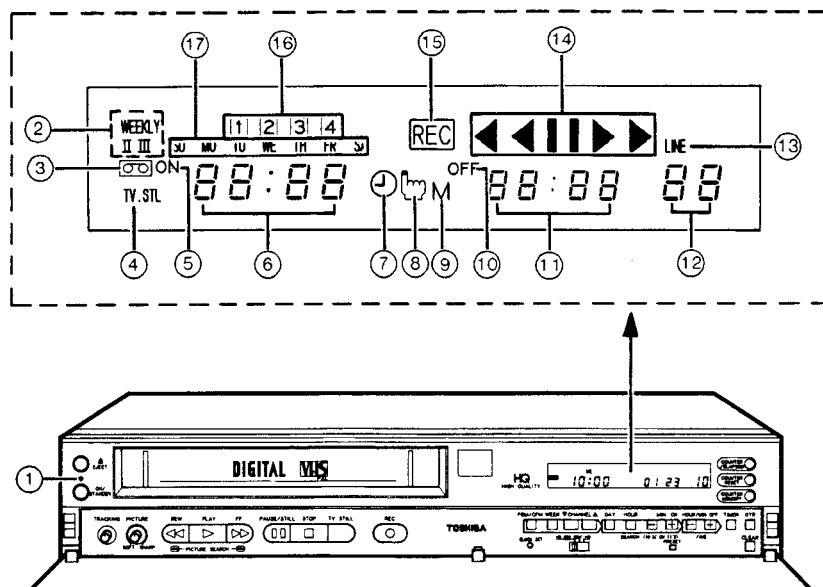
**47 B/W-AUTO switch**

This switch should normally be set to the "AUTO" position. In a weak signal area, set this switch to the "B/W" position. In the playback mode, set this switch to the switch setting position used for recording.

**48 Power lead**

Connect to wall AC outlet (220V, 50Hz)

# INDICATORS



## INDICATORS

- ① **ON/STANDBY indicator (Green)**  
Lit when the power is on.
- ② **WEEK indicator**  
Lit when the WEEK button is pressed. (II → III → WEEKLY)
- ③ **Cassette indicator**  
The lamp is lit when a cassette is loaded, even when the power is off. The lamp flashes when a tape is being inserted or ejected.
- ④ **TV STILL indicator**  
Lit when the TV STILL button is pressed.
- ⑤ **Programme timer start time indicator (ON)**  
Lit during timer programme setting.
- ⑥ **Clock indicator and timer start time indicator**  
Shows the current time or timer start time during timer programme setting.
- ⑦ **Timer indicator**  
Lit when the TIMER button is pressed.
- ⑧ **OTR indicator**  
Lights during one touch recording.
- ⑨ **Memory indicator**  
Lit when the COUNTER MEMORY button is pressed. Goes off when the COUNTER MEMORY button is pressed again.
- ⑩ **Timer end time indicator**  
Lit during timer end time setting operation.
- ⑪ **Shows the timer programme end time, counter display as well as elapsed time display (only in the recording mode).**

## ⑫ Channel indicator

Lights when a signal is being received from the VTR tuner. Indicates the channel currently watched or recorded.

## ⑬ Lit when the channel position is set to 0 to receive the external signals.



## ⑭ Multifunctional indicators

▶ <b>PLAY</b>	<b>II STILL</b>	<b>REC ▶ REC</b>
<b>REW/</b> Reverse Picture Search	<b>FF/</b> Forward Picture Search	<b>I ▶ SLOW</b>
<b>REC II</b> <b>PAUSE</b>		

## ⑮ REC indicator

Lit when the REC button is pressed.

## ⑯ Programme number indicator

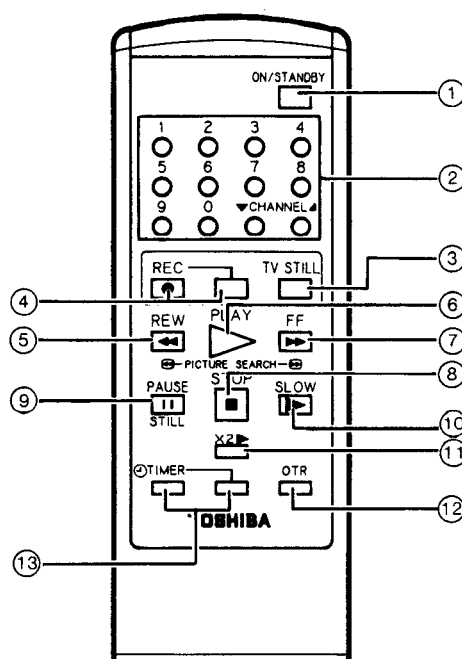
These lamps indicate the programme number into which a programme setting is being entered when setting the programmable timer.

## ⑰ DAY indicator

Shows the current day for the VTR clock and the day when the timer programme will begin.



# REMOTE CONTROL UNIT



## ① ON/STANDBY button

This button is used to turn the VTR on and off.

## ② Channel select buttons section

10 keys: used to directly select the desired channel. When you select channels 1 to 9, combine the 0 key and any of the keys 1 to 9 to make channels such as 01, 02, 03 and so on.

Up/down buttons:

When the up button is pressed, the channel will change in the upper direction (higher channel). When the down button is pressed, the channel will change in the lower direction (lower channel).

### Note:

When selecting audio and video signals from external audio and video equipments, select channel position 0 with the up/down buttons or 10 keys. The fluorescent display then shows as follows.



## ③ TV STILL button

Use this button to freeze a picture received through the VTR tuner in the stop mode.

## ④ Record buttons (REC)

Press to start recording. The REC indicator comes on. When recording be sure to press the two buttons (right-hand and left-hand) simultaneously.

## ⑤ Rewind button (REW)

Press this button to rewind tapes rapidly. During the playback mode, pressing this button will allow you to play tapes in the reverse direction rapidly.

## ⑥ PLAY button

Press this button to play back pre-recorded cassettes with safety tab or restart playing back the pre-recorded cassettes without safety tab after the fully-automatic function was interrupted.

## ⑦ Fast forward button (FF)

Press this button to move tapes forward rapidly. During the playback mode, pressing this button will allow you to play tapes in the forward direction rapidly.

## ⑧ STOP button

Press this button to stop the tape.

## ⑨ PAUSE/STILL button

Used to operate in two different ways:

A) To temporarily stop the tape in the recording mode.

B) To view a still picture in the playback mode.

## ⑩ SLOW buttons

This button is used to slowly play back the picture at 1/6 times the speed of the normal playback.

## ⑪ Two times speed playback button (× 2 ►)

When the button is pressed in the playback mode, the picture advances at two times the speed of the normal playback. During the two times speed playback, sound is heard and the picture is reproduced without noise.

## ⑫ OTR button

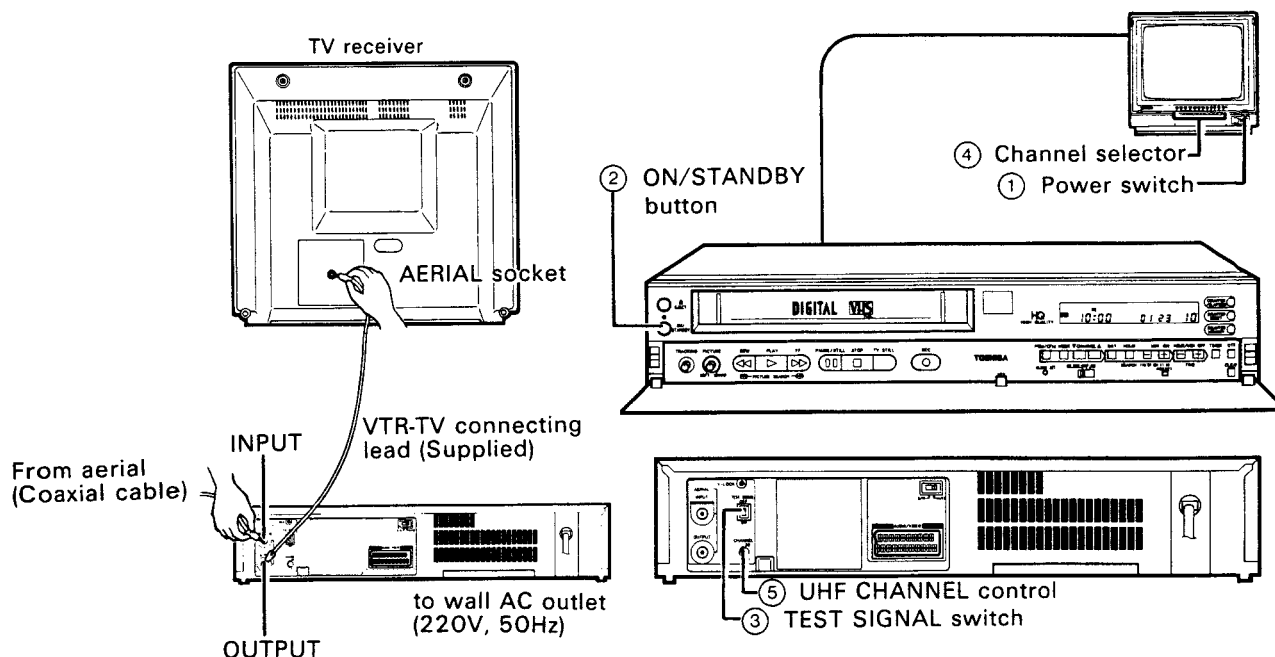
Used to operate the one touch timer recording in units of 30 minutes (up to 4 hours).

## ⑬ TIMER buttons

Used to make the VTR enter the timer mode, especially for the one touch timer recording.

When doing the timer recording, be sure to press the two buttons simultaneously.

# AERIAL CONNECTION/TUNING ADJUSTMENT



## TV AERIAL CONNECTION

Remove the aerial lead from the rear of your TV receiver and plug it into the socket marked AERIAL INPUT at the rear of the VTR.

## VTR-TV CONNECTION

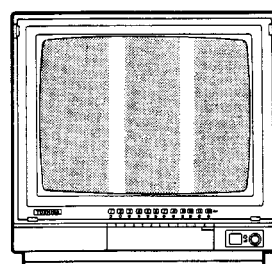
Connect one end of the lead supplied to the aerial socket of your TV receiver and the other end to the plug marked AERIAL OUTPUT at the rear of the VTR. Note that the ends of the lead are not the same, so that only one end will fit the television aerial socket.

## TUNE YOUR TV TO THE VTR OUTPUT CHANNEL

The RF converter changes the video and audio signals from a previously recorded video tape during playback to the same type of signal used in TV broadcasts. The RF converter output in this unit may be set between 31 and 39. Since accurate adjustment to the RF converter output is required to obtain the best possible reproduction on your TV receiver, perform the following directions very carefully.

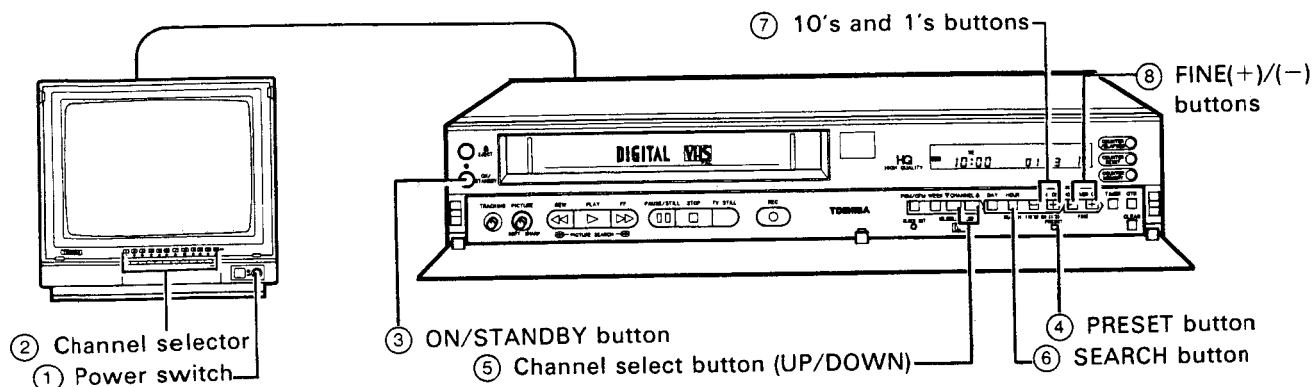
1. Turn on the power switch ① of the TV.
2. Set the ON/STANDBY button ② of the VTR to ON.
3. Set the TEST SIGNAL switch ③ to ON.  
(Your VTR will now be supplying a test signal to the TV receiver. The test signal is on a channel between 31 and 39.)

4. Select the VTR output channel on the TV channel selector ④. Tune the channel until the black and white test pattern as shown below is clearly displayed. The VTR channel on the TV must be selected any time a video cassette is played back on the VTR.



5. However, occasionally you might experience interference from an adjacent broadcast channel. This can be overcome by changing the output channel of the VTR, and this is done by tuning the UHF CHANNEL control ⑤ on the rear panel. Retune your receiver to suit the new VTR output channel.
6. Set the TEST SIGNAL switch ③ to OFF.

# CHANNEL SELECTION



The tuner built in this VTR is the FS (Frequency Synthesized) tuner and is capable of receiving VHF channels E2 to E12, X to Z and S1 to S20, and UHF channels 21 to 69.

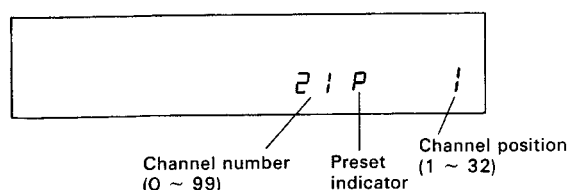
Channels may be memorized in channel positions 1 to 32.

**Note:** For channel allocation, refer to page 26.

When selecting a VHF/UHF station or changing to a preferred order, carry out the operation in numerical order as follows.

**Example:** Setting UHF station (ex. 26ch) in position 2

1. Turn on the power switch ① of the TV and set the VTR output channel on the TV channel selector ②.
2. Press the ON/STANDBY button ③ to ON (Light ON).
3. Open the door of the VTR front side.
4. Press the PRESET button ④.



5. Set the channel position to be preset using channel select buttons (up/down) ⑤ or the 10 key on the remote control unit. .... "2"



6. Set the channel you wish to tune in.

There will be two cases:

- (a) When you do not know the channel number you want to tune in:

Press the SEARCH button ⑥.

The channel will be up by one from lower channel E2. If the received signal is tuned in, scanning operation stops automatically.

If the scanned channel is not that one you want to store into the tuned memory, press the SEARCH button ⑥ to restart channel search operation.

- (b) When you do know the channel number you want to tune in:

Select the channel number using the 10's and 1's buttons ⑦.



7. Make fine adjustment using the FINE (+)/(-) buttons ⑧.



Press the "+" button until colour appears.



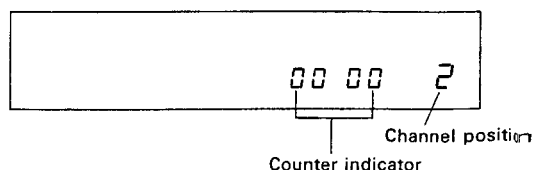
Best picture



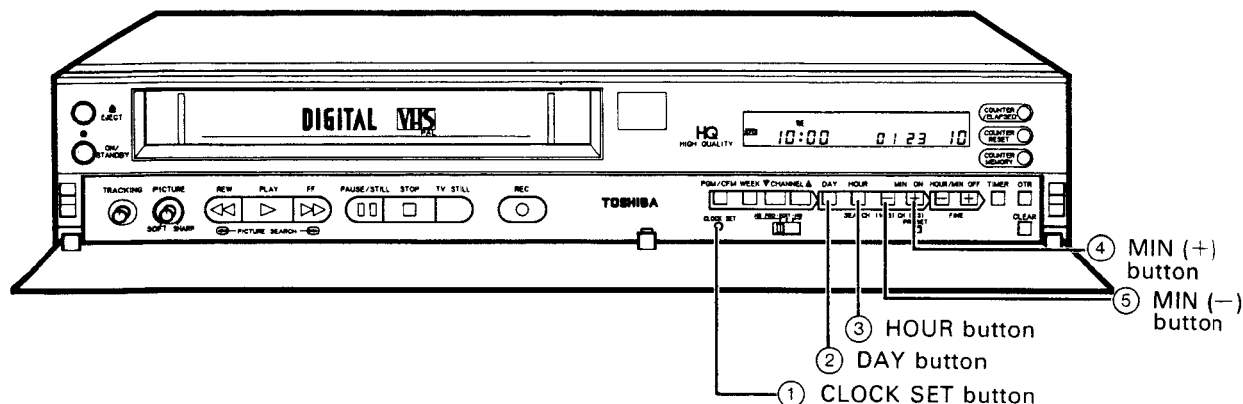
Press the "-" button until the stripes disappear.

8. Repeat steps 5 to 7 (up to 32 positions).

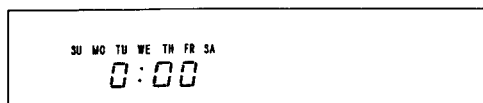
9. Press the PRESET button ④. When the button is pressed, the display enters the counter mode showing only channel position number.



## SETTING THE VTR CLOCK

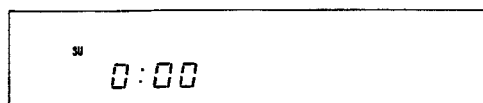


When the power lead is first connected to the AC outlet, or after an interruption of the power supply, the indication SU...SA 0:00 appears, flashing on the display as shown.

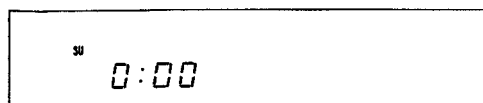


**Example: To set for FR 19:25 (Friday, 19:25)**

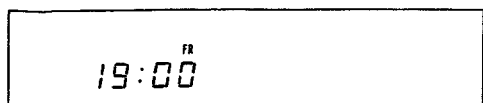
1. Press the CLOCK SET button ① to set the unit to the clock set mode.



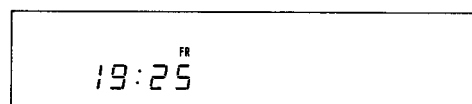
2. Press the DAY button ② to set the day of the week ..... "FR"



3. Press the HOUR button ③ to set the hour digits ..... "19"

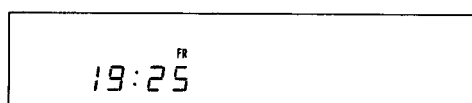


4. Press the MIN (+) button ④ to set the minute digits ..... "25"



### Notes:

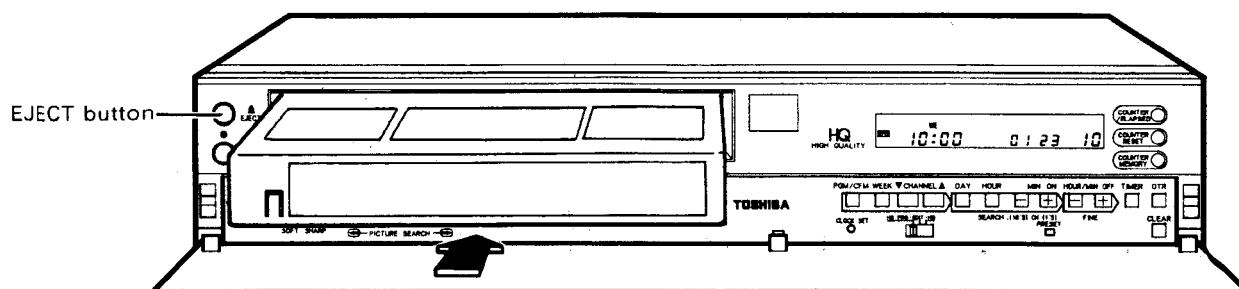
1. When the button is pressed once, the digit advances by one. When the button is kept pressed down, the minutes advance rapidly.
2. If you pass the desired time by mistake, use the MIN (-) button ⑤ to turn back the minutes.
5. Press the CLOCK SET button ① to display the current time. When the button is pressed, the clock starts from zero seconds. To synchronize the clock with the radio time signal, press the CLOCK SET button ① on the last pip of the hourly time signal.



### Notes:

1. Be sure to set the current time before doing "TIMER RECORDING".
2. After power interruption, the fluorescent display changes in two ways: the colon (:) flashes, and the indication SU...SA 0:00 flashes. In former case, press the CLOCK SET button ① twice. In the latter case, reset the VTR clock to the current time and reset the programming data for the timer recording. For details, see page 20.

# VIDEO CASSETTE



## INSERT A VIDEO CASSETTE

Insert the cassette into the slot of the VTR. The VTR is turned on. The cassette indicator is lit.

### Note:

This VTR is provided with a Auto Power On system. When inserting the cassette, there is no need to press the ON/STANDBY button to turn on the VTR.

## REMOVING A VIDEO CASSETTE

Press the EJECT button when the power is on. The cassette automatically ejects.

## TYPE OF VIDEO CASSETTE

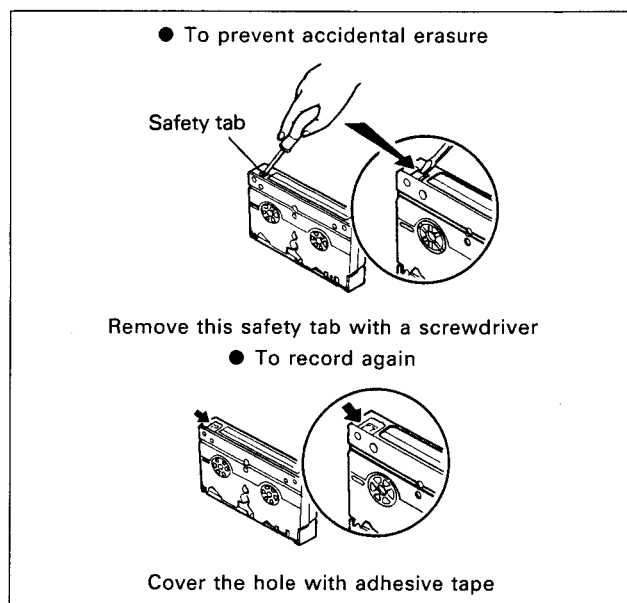
This VTR employs VHS-type cassettes only.

Type of cassette	Recording/playback time
E-30	30 minutes
E-60	60 minutes
E-120	120 minutes
E-180	180 minutes
E-240	240 minutes

\* The above is measured in SP (Standard Play) mode

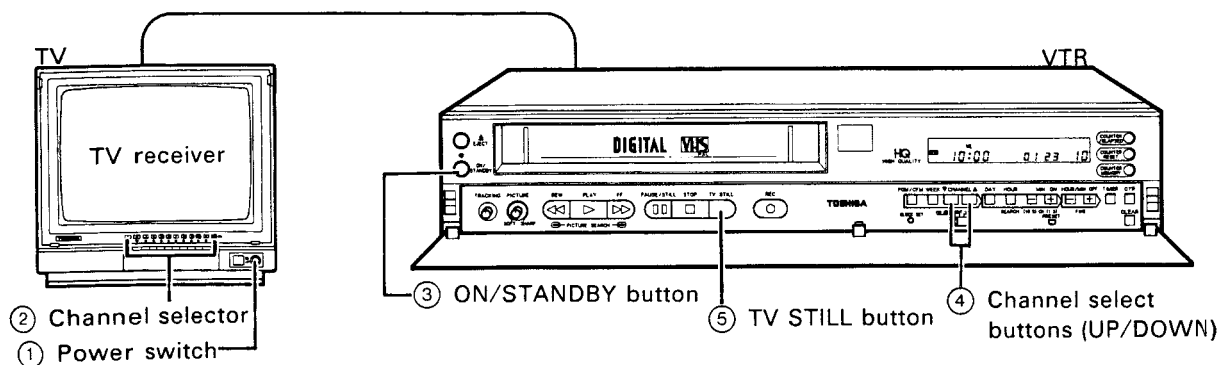
## PRECAUTIONS ON USING VIDEO CASSETTES

- Video cassettes are equipped with a safety tab to prevent accidental erasure. When the tab is removed, recording cannot be performed. If you wish to record on a cassette whose tab has already been removed, use adhesive tape to cover the hole.



- Avoid exposing the cassettes to direct sunlight. Keep them away from heaters.
- Avoid extreme humidity, violent vibrations or shocks, strong magnetic fields (near a motor, transformer or magnet) and dusty places.
- Place the cassettes in cassette cases and position vertically.
- Do not insert hand(s) or any foreign object(s) into the cassette compartment. Otherwise, injury may result (be especially careful with children) or damage may occur to the VTR.

## TV VIEWING



### NORMAL TV VIEWING

Two types of normal TV viewing are possible when the VTR is connected to the TV.

#### Using the TV tuner

1. Turn on your TV power switch ①.
2. Select the desired channel with the channel selector ② on the TV.

**Note:** It is not necessary to turn the VTR on in this case.

#### Using the VTR tuner

1. Press the ON/STANDBY button ③ of the VTR.
2. Set the TV channel selector ② to the VTR output channel.
3. Select the desired channel with the channel select buttons (UP/DOWN) ④ on the VTR or the Remote Control Unit.

### TV STILL VIEWING

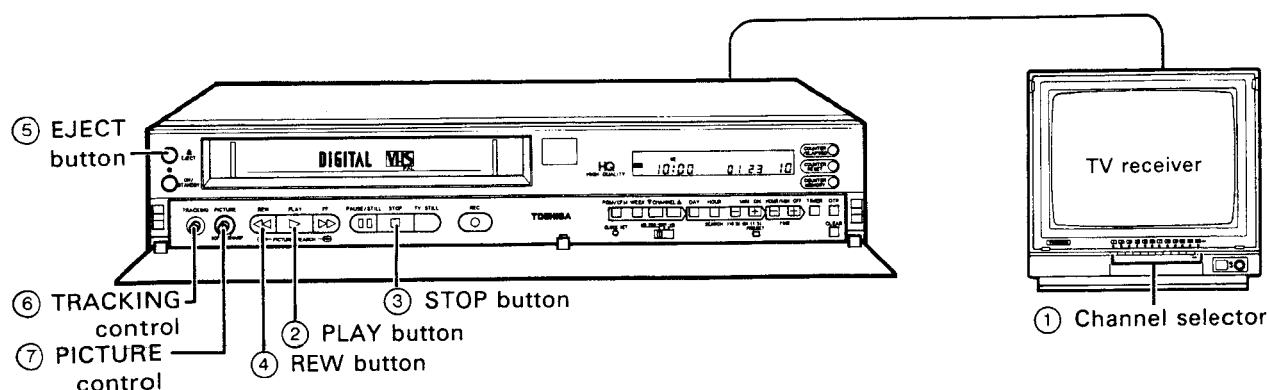
When using a TV to view picture from the video tuner or line input, pressing the TV STILL button stops the TV picture.

1. Press the ON/STANDBY button ③.
2. Set the TV channel selector ② to the VTR output channel.
3. Press the channel select buttons (UP/DOWN) ④ of the VTR to select the desired channel.
4. Press the TV STILL button ⑤ to stop the picture, and a TV STILL picture will appear.

**Note:** Sound is output while you view a TV STILL picture on the TV screen.

5. Press the TV STILL button ⑤ again to release the TV STILL picture.

# PLAYBACK



## TO PLAY A RECORDED TAPE

1. Set the TV channel selector ① to the VTR output channel.
2. Insert a pre-recorded tape into the VTR. The VTR then will be automatically switched into the playback mode. When the tape reaches its end, the tape will be automatically rewound to its start position and ejected. After ejection, the VTR will turn off automatically.

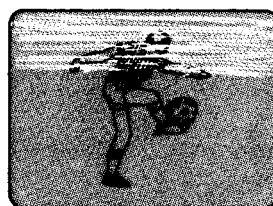
### If the pre-recorded cassette has a safety tab:

1. After inserting the cassette, press the PLAY Button ② to start playback.
2. When the playback is finished, press the STOP button ③.
3. Rewind the tape by pressing the REW button ④.
4. Press the EJECT button ⑤ to take out the cassette.

## TRACKING CONTROL ADJUSTMENT

When playing pre-recorded tapes or tapes recorded on another machine, horizontal noise bars may appear on the picture. Adjust the TRACKING control ⑥ to reduce this effect. Allow a second or two for new settings of this control to take effect. Always return this control to its center position after use.

Bad tracking adjustment



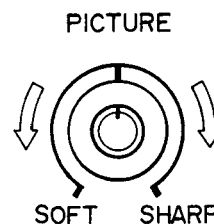
TRACKING

Good tracking adjustment

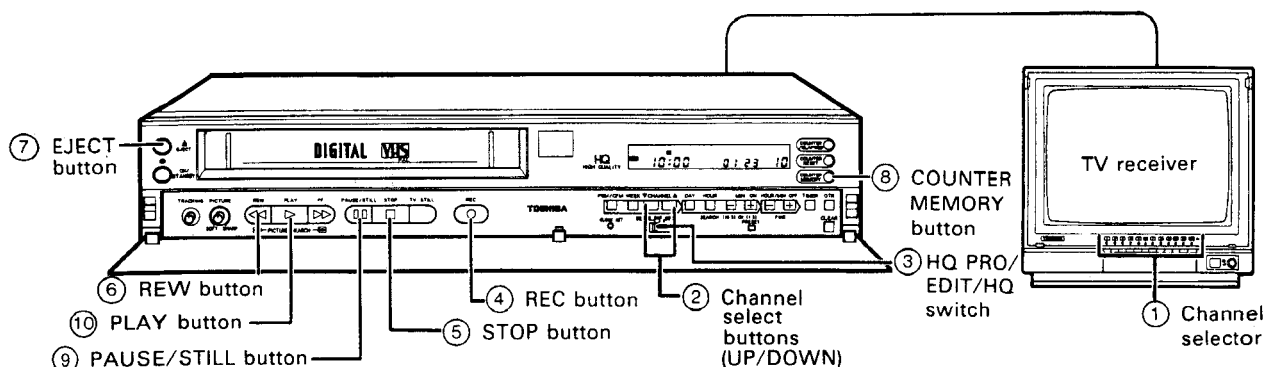


## PICTURE SHARPNESS ADJUSTMENT

The PICTURE control ⑦ is installed in this unit. To make the picture sharper, turn the control clockwise; to make the picture softer, turn the control counterclockwise.



## RECORDING



### RECORDING A TV PROGRAMME WHILE WATCHING IT

1. Insert the cassette with safety tab.
2. Set the TV channel selector ① to the VTR output channel.
3. Select the channel which you want to record with the channel select buttons ②.
4. Set the HQ PRO/EDIT/HQ switch ③ to the HQ PRO position.
5. Press the REC button ④.
6. After recording, press the STOP button ⑤.
7. Press the REW button ⑥ to rewind the tape.
8. Press the EJECT button ⑦ to take out the cassette.

#### Notes:

1. When a tape has reached the end, the tape is automatically rewound to the beginning of the cassette in the recording, play or fast forward modes. When the COUNTER MEMORY button ⑧ is set to ON, the unit stops at a counter reading of about "0000".
2. To change a recording channel during recording, press the PAUSE/STILL button ⑨, select the desired channel with the channel select buttons ②, then press the PAUSE/STILL button ⑨ to start recording again.
3. Press the PAUSE/STILL button ⑨ to eliminate unnecessary material. If the pause is continued for more than 10 minutes, the VTR returns to the stop mode in order to protect the tape and internal components.

### RECORDING A TV PROGRAMME WHILE WATCHING ANOTHER

If two desired programmes are on at the same time, one programme can be viewed while the other is being recorded.

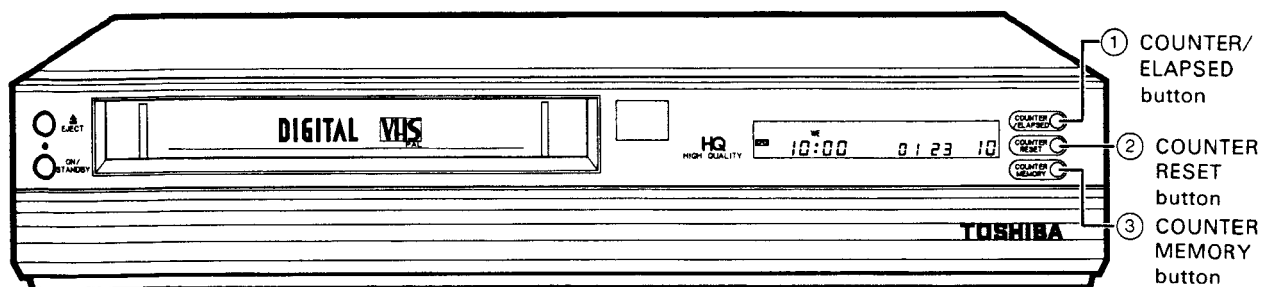
1. Insert a cassette with a safety tab.
2. Set the TV channel selector ① to the VTR output channel.
3. Select the channel which you want to record with the channel select buttons ②.
4. Set the HQ PRO/EDIT/HQ switch ③ to the HQ PRO position.
5. Press the REC button ④.
6. Select the desired TV channel for viewing by using the TV channel selector ① of your TV receiver as usual.

### EDITING A RECORDING

1. Insert a pre-recorded tape with safety tab in the VTR.
2. Press the PLAY button ⑩ and watch the programme until the exact point is reached where you want the new recording to begin.
3. Press the PAUSE/STILL button ⑨. A still picture will appear on the TV screen.
4. Press the REC button ④. The programme material to be recorded will appear on the TV screen.
5. When you want to begin recording, press the PAUSE/STILL button ⑨ again. The new programme material will directly follow the previously recorded material without interruption.

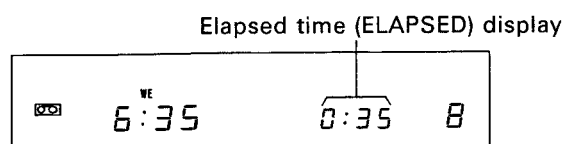
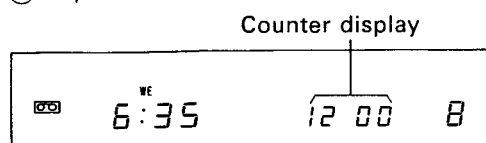


# TAPE COUNTER



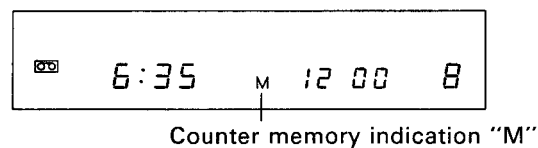
## COUNTER/ELAPSED TIME OPERATION

The fluorescent display will either show the counter or the elapsed time when the COUNTER/ELAPSED button ① is pressed.



## COUNTER MEMORY OPERATION

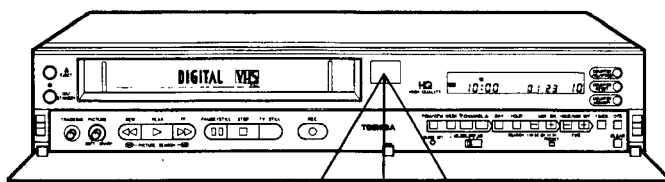
When the COUNTER MEMORY button ③ is pressed, the indicator "M" is displayed and the tape stops at a counter reading about "0000" during rewinding and fast forward modes. You now can return to the beginning of a recorded section quickly and easily.



## COUNTER RESETTING

At the beginning of the tape, press the COUNTER RESET button ②. This will set the counter to "0000". While recording or during playback, write down the programme recorded along with its corresponding counter numbers. Later, when using fast forward or rewind, you can easily find any sections desired.

# REMOTE CONTROL OPERATION



## REMOTE CONTROL BUTTON FUNCTIONS

Each function of the remote control except for the SLOW, 10 key and two times speed playback function corresponds to those of the buttons provided on the front panel of the VTR. You can operate 27 functions in all by using the remote control unit which contain CHANNEL UP/DOWN, 10 key (direct channel selection), ON/STANDBY, RECOrd, REWind, Fast Forward, PICTURE SEARCH (FORWARD, REVERSE), PLAY, PAUSE/STILL, SLOW, STOP, TV STILL, OTR, TIMER and two times speed playback modes.

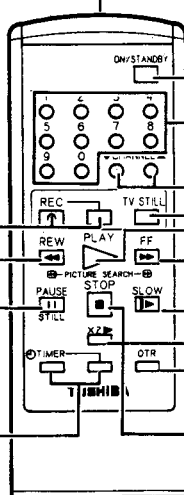
The Remote Control must have "Line of Sight" to the INFRARED REMOTE control receiver on the front of the VTR. It must be within an angle of 30° either side of center. When you use the remote control unit while aiming it at the front side of the VTR, the maximum operating distance is about 7 m (within 30° either side of center, the effective operating distance is approximately 5m).

REC (RECOrd) buttons (Press the REC button simultaneously with right-hand button.)

REW (Rewind) button

PAUSE/STILL button

TIMER buttons (Press the TIMER button simultaneously with right-hand button.)



ON/STANDBY button

10 key

CHANNEL select buttons (up/down)

TV STILL button

PLAY button

FF (Fast Forward) button

SLOW button

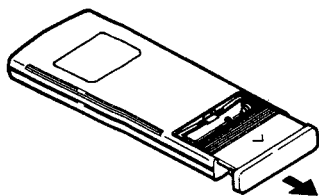
Two times speed playback button (x2)

OTR button

STOP button

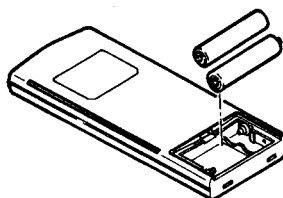
## INSTALLING BATTERIES

1. Remove the battery cover in the direction of the arrow.

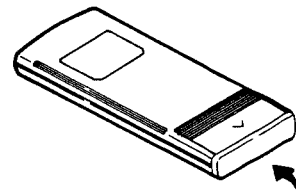


2. Install 2 batteries ("R03" size) into the unit.

**Note:** Carefully install batteries to match the polarity diagrams.



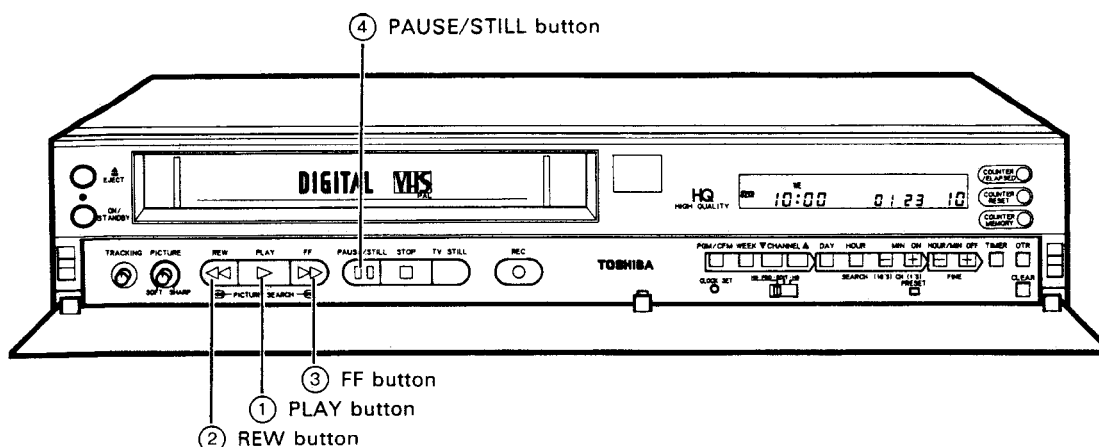
3. Close the battery cover.



### Notes:

1. Remote control cannot be operated under the following conditions.
  - In timer recording mode
  - Without a cassette in the cassette compartment
2. When using the remote control unit, press control buttons at intervals of about one second to ensure correct mode of operation.
3. If the remote control unit is not to be used for a long period of time, remove the batteries to avoid possible damage from battery corrosion.
4. Keep unit away from extremely hot or humid places and avoid mechanical shock.

## SPECIALIZED PLAYBACK



### PICTURE SEARCH

1. Press the PLAY button ①.
2. When the REW button ② or FF button ③ is pressed the picture moves quickly (about 7 times the normal speed) in reverse or forward direction, and you can search for desired parts of a programme.

#### Notes:

- During the picture search operation, a few noise bars will go up and down on the playback picture.
- During the picture search operation, if the picture flows vertically on the TV screen, adjust the V-HOLD knob on the TV set.
- During the picture search operation, the sound will be muted.

### DIGITAL STILL PICTURE

1. Press the PLAY button ①.
2. To stop the tape momentarily or to watch a still picture during playback, press the PAUSE/STILL button ④.
3. Press the PAUSE/STILL button ④ again to release the still picture and return to normal playback.

#### Note:

- The still mode will cease automatically after a lapse of approximately 5 minutes. The VTR will return to PLAY from STILL.

### TWO TIMES SPEED PLAYBACK (AVAILABLE ONLY WITH THE REMOTE CONTROL UNIT)

Pressing the two times speed playback ( $\times 2 \blacktriangleright$ ) button while in the playback mode, you can perform the playback two times the normal playback. At this time, picture is reproduced without noise. And sound can be heard. (Sound is not reproduced as it is.)

1. Press the " $\times 2 \blacktriangleright$ " button on the remote control unit.
2. Press the STOP button on the VTR unit or the remote control unit to stop the two times speed playback.

#### Note:

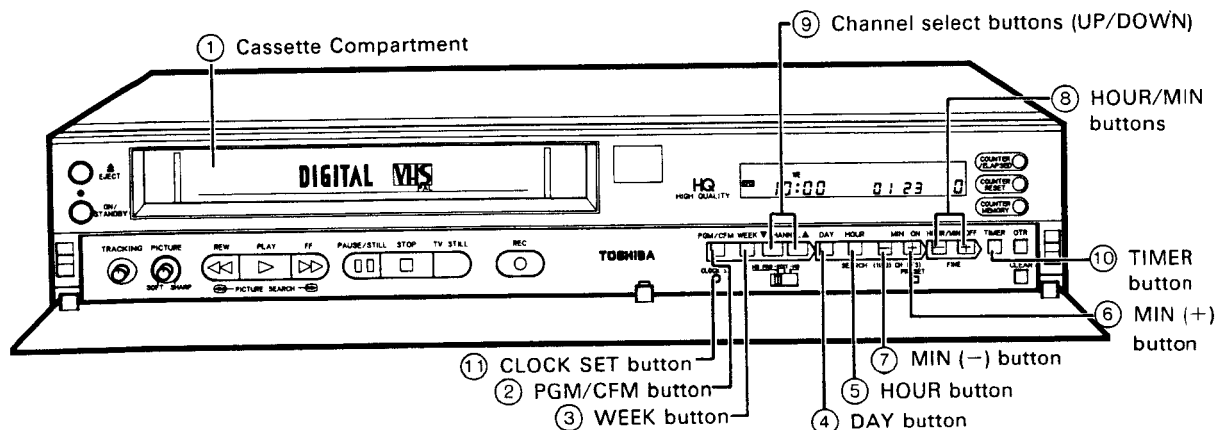
Even if you adjust the picture distortion on the TV by the V-Lock control, the vertical picture distortion still might occur depending on the TV's.

### SLOW PLAY (AVAILABLE ONLY WITH THE REMOTE CONTROL UNIT)

Pressing the SLOW button permits you to play back the picture at 1/6 times the speed of the normal playback.

1. Press the PLAY button ① or PLAY button on the remote control unit.
2. Press the SLOW button on the remote control unit.
3. Press the PLAY button again to resume normal playback.

# TIMER RECORDING



The timer used in this VTR can preset four programmes for one day of the first week, one day of the next week, one day of the third week, the same day of every week, at the same time everyday.

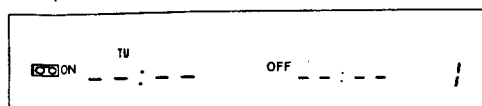
The clock used is the 24-hour type. This VTR is capable of 21-day timer setting, and is designed to start timer recording when the TIMER button is pressed.

Five types of "day" setting are available in this VTR.

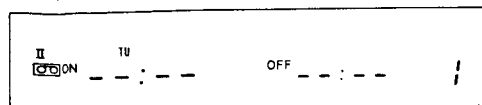
For example, if today is Tuesday, 7

SU (SUNDAY)	MO (MON-DAY)	TU (TUES-DAY)	WE (WEDNES-DAY)	TH (THURS-DAY)	FR (FRIDAY)	SA (SATUR-DAY)
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

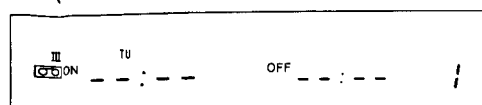
- (1) 1st week "TU", 7th  
(ineffective after execution)



- (2) Next week "II TU", 14th  
(ineffective after execution)



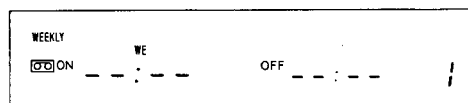
- (3) Third week "III TU", 21st  
(ineffective after execution)



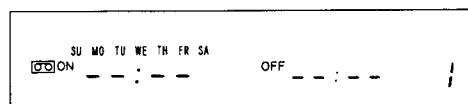
- (4) Weekly Wednesday "WEEKLY WE"

8  
15  
22  
29

continues to the next month



- (5) Every day "SU, MO TU, WE, TH, FR, SA"



When the WEEK button is pressed, the WEEK indicator lights as follows:

II → III  
↑  
WEEKLY ←

When the day button is pressed, the day display changes as follows:

TU → WE → TH → ---- → MO  
↓  
every day "SU. MO. TU. —SA"

**Note:** The day display changes from the current time.

## OPERATION

1. Confirm the current time. If the current time is not correct, reset the current time. (See page 11.)
2. Insert a cassette into the cassette compartment ①. (Check the cassette safety tab has not been removed.)
3. Specify the programme number (1 through 4) with the PGM/CFM button ②.
4. Press the WEEK button ③ if you want programmes for one day of the next week, one day of the third week or the same day of every week.

# TIMER RECORDING

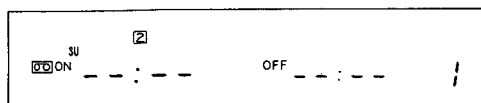
- Set the day of the week with the DAY button ④.  
(There are five "day" settings available as described on page 19.)
- Set the on time with the HOUR button ⑤, MIN (+) ⑥ and MIN (-) button ⑦.
- Set the end time with the HOUR/MIN buttons ⑧.

## Notes:

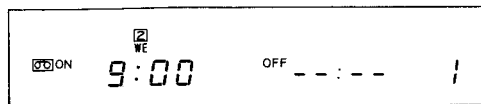
- 10-minute-digit is automatically carried to one-hour-digit when 10-minute-digit is over 60 minutes by continuously pressing the (+) button of the HOUR/MIN buttons.
- Use the (-) button to put back the timer end time.
- Select the programme you want to see with the channel select buttons ⑨.
- To continue to preset the programmes, repeat steps 3 to 8.
- Press the TIMER button ⑩.

**Example:** To preset channel 25 in programme 2 from 13:00 to 13:15 of the next week on Tuesday.  
(Today is Wednesday at 9:00.)

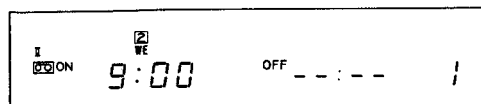
- Press the PGM/CFM button ② to set "2" position.



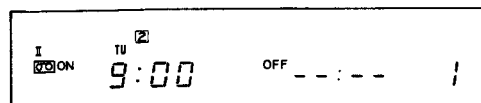
- Press the WEEK button ③ once.  
(The current time will be shown in the display.)



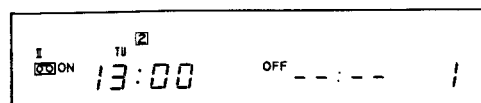
- Press the WEEK button ③ again to display "II".



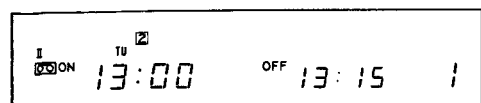
- Press the DAY button ④ to set "II TU".



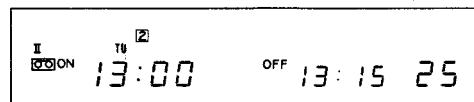
- Press the HOUR button ⑤, MIN (+) ⑥ and MIN (-) ⑦ buttons to set the start time....."13:00"



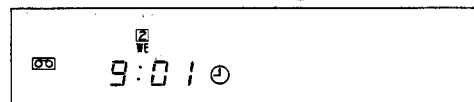
- Press the HOUR/MIN buttons ⑧ to set the end time ..... "13:15"



- Press the channel select button ⑨ to select the desired channel..... 25  
(In this case, you can directly select the desired channel with the remote control unit.)



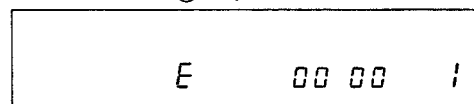
- Press the TIMER button ⑩.



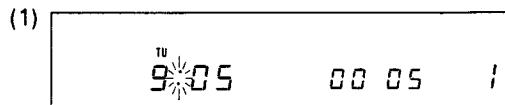
(The VTR clock works during timer setting.)

## Notes:

- When no cassette is loaded, timer recording is not possible.  
In this case, the "E" indicator is displayed while the TIMER button ⑩ is pressed.



- If the cassette tab has been removed, timer recording is also not possible. At this time, the cassette is ejected automatically.
- During timer recording, the preset contents (programme number, channel, day of the week or timer on/off time) cannot be changed.
- The end time can be preset every 30 minutes with the OTR button.
- Programme settings remain in effect until they are executed.
- After a power interruption, the fluorescent display is as shown below.



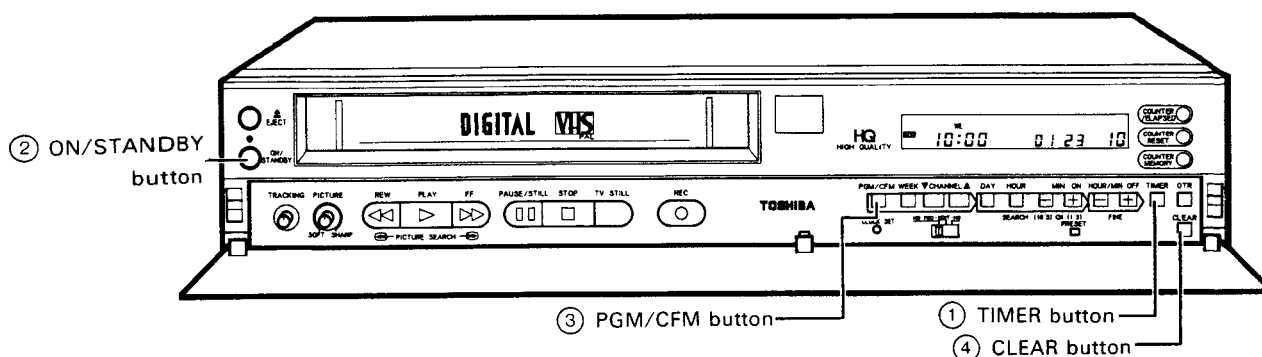
In this case, the contents of the programmes remain in effect. Press the CLOCK SET button ⑪ to confirm the current time is correct. Press it again to set the current time.



In this case, the preset programmes become in effective. Reset the VTR clock to the current time and do the programme setting from the beginning.

- To proceed to setting another programme at step 7, press the PGM/CFM button ②.
- Timer setting is possible even in standby mode.

## ADDITIONAL INFORMATION FOR TIMER RECORDING



### TO USE THE VTR AFTER SETTING THE PROGRAMMABLE TIMER

1. Press the TIMER button ① to release the timer mode.
2. Press the ON/STANDBY button ② to turn on the VTR.
3. After use, be sure to press the PGM/CFM button ③ to verify the contents of the stored programmes.
4. To enter the timer mode again, press the TIMER button ①.

### TO CANCEL THE TIMER PROGRAMME

1. Press the PGM/CFM button ③ to display the programme number to be cancelled.
2. Press the CLEAR button ④. The timer off time and channel are also erased.

### TO CHECK THE TIMER PROGRAMME

It is very useful to make a schedule for timer programmes so that you can know the contents of the stored programmes. The following method is available to check the data preset in the timer programme.

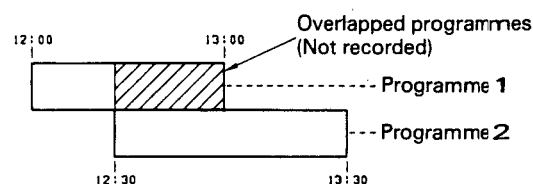
1. Press the PGM/CFM button ③.

The contents of the programmes 1 through 4 (start time and end time) that were previously stored, will be displayed on the fluorescent display continuously.

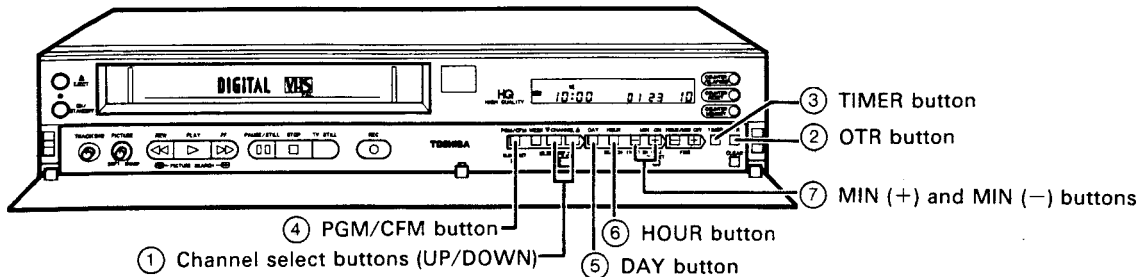
### PROGRAMME OVERLAPPING

Be careful not to overlap the preset times.

If you happen to overlap the preset programmes, start time has priority in execution, and the overlapped programme will not be recorded. See figure below.



# ONE TOUCH TIMER RECORDING



This VTR unit features a one touch recording (OTR) function. This function allows you to record at 30 minute periods, for up to 4 hours.

After the recording is completed, the power goes off automatically.

Also, when setting the timer, the off time can be set at 30 minute periods. The One Touch Recording (OTR) mode takes priority over other VTR operation modes. For example, when the OTR mode is activated while the VTR is in the timer mode, the VTR will automatically return to the timer mode after the OTR mode is completed. Thus, it is possible to have 5 different timer recordings.

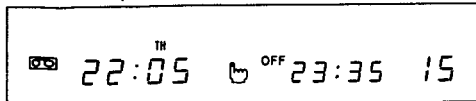
## OTR OPERATION

**Example:** To record channel 15 starting from now for 1-1/2 hours at a current time on Thursday, 22:05

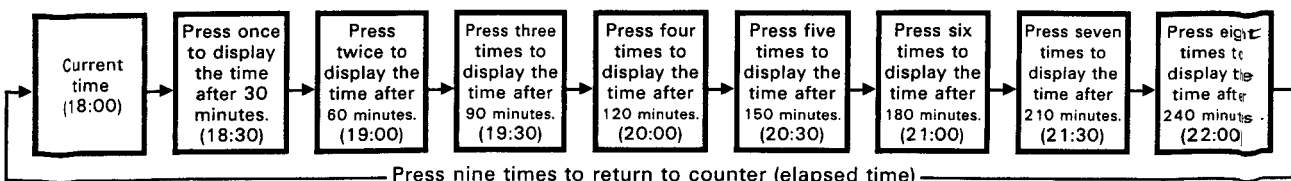
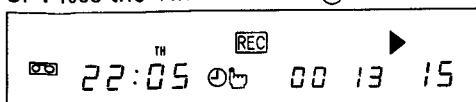
1. Select channel 15 by pressing channel select buttons (up/down) ①.



2. Press the OTR button ② to set the recording time.  
When the OTR button ② is pressed once: 22:35 (30 minutes)  
When the OTR button ② is pressed twice: 23:05 (1 hour)  
When the OTR button ② is pressed three times: 23:35 (1 hour and 30 minutes)



3. Press the TIMER button ③ within 9 seconds.



### Notes:

1. Thirty minutes are added every time the OTR button ② is pressed, for up to 4 hours (eight times). (The one touch timer can only be set in 30-minute units.)
2. One touch timer operation is possible only when power is on and the VTR is in the clock mode.
3. The one touch timer function has priority over any other operation function (play back, recording, timer, etc.)

## TO SET THE TIMER OFF TIME WITH THE OTR BUTTON

**Example:** To set channel 18 starting from Saturday, 20:02 for 1 hour to programme 1 at a current time of Tuesday, 8:21

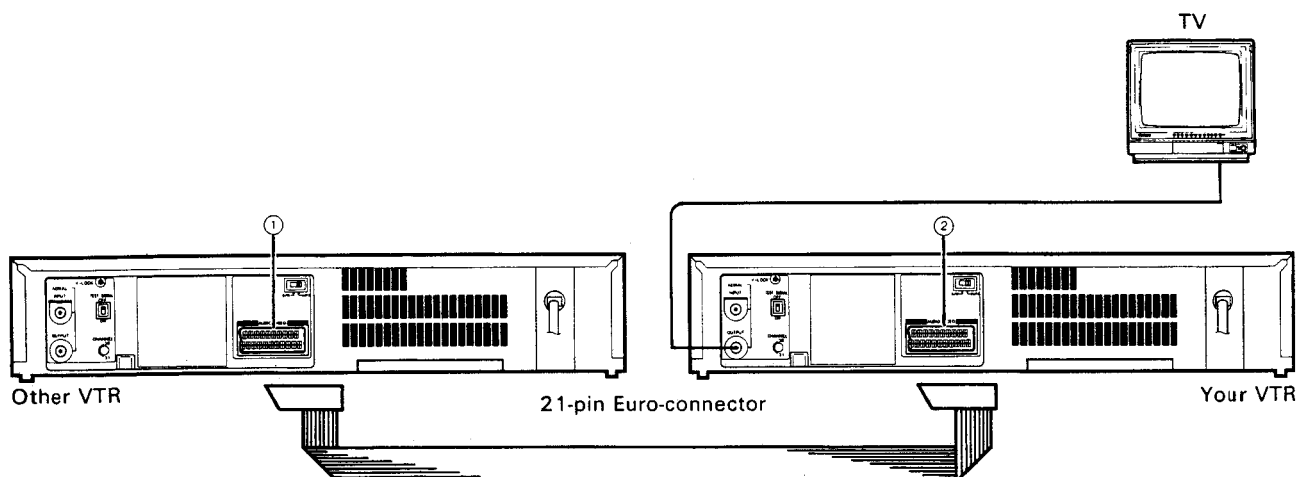
1. Confirm the current time. If the current time is not correct, set the current time again (see page 11).
2. Insert a cassette into the compartment. (Check the cassette safety tab has not been removed).
3. Specify the programme number (1 through 4) with the PGM/CFM button ④....."PGM 1"
4. Set the day of the week with the DAY button ⑤....."SA"
5. Set the recording start time with the HOUR button ⑥ and MIN (+) and MIN (-) buttons ⑦ to 20:02.
6. Press the OTR button ② three times.
7. Select the desired channel 18 with the channel select buttons (up/down) ① or use the remote control unit to directly select the desired channel.
8. Press the TIMER button ③ to complete the timer setting.
9. The "TIMER" indicator lights.

### Error indication

When the TIMER button ③ is pressed without setting timer on/off time, or without a cassette in the compartment, the "E" indicator lights (while the TIMER button ③ is pressed).

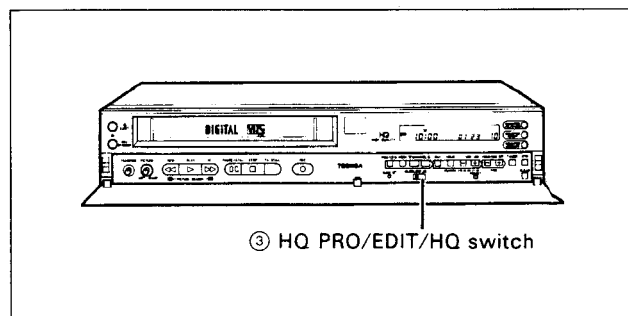
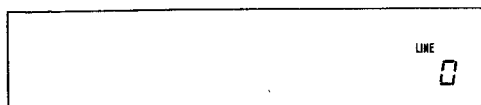
# TAPE COPYING

ENGLISH



## VTR TO VTR COPYING

1. Connect the AUDIO/VIDEO connector ① of the other VTR to the AUDIO/VIDEO connector ② of your VTR.
2. Set the HQ PRO/EDIT/HQ ③ switch to the EDIT position.
3. Select channel position 0 with the channel select buttons of the recording side VTR.  
The display below will be indicated.  
(Note: Selecting position 0 on the channel display switches the machine into the line mode.)



4. Play the tape on other VTR while viewing the picture on the monitor TV of your VTR and record it on your VTR.

### Notes:

1. When copying is finished, set the channel position to any channel position number other than 0.
2. When copying, the quality of the copied picture is slightly reduced.
3. When you record a special digital playback picture or a TV still picture on the other VTR, you cannot record it correctly. This is not a malfunction.



# BEFORE CALLING SERVICE PERSONNEL

Check the following items before requesting servicing.

ITEM	SYMPTOMS	CAUSE	CORRECTIONS
Power supply	Power supply is not turned on.	● Power supply lead is not plugged in.	● Insert it firmly into the mains socket.
	Although the power is on, it does not operate.	● Cassette is not inserted.	● Confirm that the cassette indicator is lit.
Clock timer	Clock does not operate.	● A power interruption has occurred.	● Reset the clock.
	Preset cannot be performed.	● Preset time is not set correctly.	● Set the current time first.
TV reception	An excellent TV picture does not appear.	<ul style="list-style-type: none"> <li>● The TV channel is not adjusted correctly for the VTR.</li> <li>● VTR output channel setting is not correct.</li> <li>● The aerial cable is disconnected.</li> <li>● The TV signal is weak.</li> <li>● The VTR power lead is unplugged.</li> </ul>	<ul style="list-style-type: none"> <li>● Adjust the TV fine adjustment knob.</li> <li>● Set the channel correctly (31 - 39).</li> <li>● Reconnect it.</li> <li>● Adjust the antenna direction or use an optional antenna booster.</li> <li>● Insert it firmly into the mains socket.</li> </ul>
Recording and playback	Picture does not appear on the TV during recording and playback.	<ul style="list-style-type: none"> <li>● TV channel is not set for the VTR output channel.</li> <li>● A connecting lead is connected to the video input terminal.</li> </ul>	<ul style="list-style-type: none"> <li>● Set it to a VTR output channel (31 - 39).</li> <li>● Unplug the connecting lead during TV programme recording.</li> </ul>
	Video recording cannot be performed.	● Cassette tab is broken.	● Use a video cassette with a tab or place cellophane tape over the hole where the tab is broken.
	An excellent picture does not appear.	<ul style="list-style-type: none"> <li>● The VTR output channel is not set correctly.</li> <li>● A video tape recorded on another VTR is played back.</li> </ul>	<ul style="list-style-type: none"> <li>● Adjust the TV fine adjustment knob.</li> <li>● Adjust it with the TRACKING control.</li> </ul>
	Timer recording cannot be performed.	<ul style="list-style-type: none"> <li>● Timer preset is not correct.</li> <li>● Cassette is not inserted.</li> <li>● Cassette tab is broken.</li> <li>● Timer button was not pressed.</li> <li>● If the clock is flashing with "SU...SA 0:00", a power interruption occurred.</li> <li>● There is not tape left on the supply reel.</li> </ul>	<ul style="list-style-type: none"> <li>● Perform presetting again.</li> <li>● Insert a cassette.</li> <li>● Cover the tab hole or use another cassette.</li> <li>● Press the TIMER button.</li> <li>● Reset the clock, and input the timer programme data again.</li> <li>● Rewind the tape.</li> </ul>
Others	Cassette is ejected soon after insertion.	● The safety unit that protects the tape and VTR operated.	● Take out the cassette and insert it again.
	Tape cannot be rewound to the beginning.	● The COUNTER MEMORY button is set to ON.	● Set the COUNTER MEMORY button to OFF.
	Remote control unit does not function.	<ul style="list-style-type: none"> <li>● Exhausted batteries.</li> <li>● Bad angle</li> <li>● No cassette loaded.</li> </ul>	<ul style="list-style-type: none"> <li>● Change to new ones.</li> <li>● Point the remote control unit within an angle of 30° either side of center.</li> <li>● Insert a cassette.</li> </ul>

# SPECIFICATIONS

Format	: VHS PAL standard
Recording	: 2 rotary heads, helical scan azimuth recording
Tape speed	: 23.39 mm/sec.
Recording time	: 240 min (with Toshiba E-240)
FF/REW time	: 6 min (with Toshiba E-180)
<b>VIDEO</b>	
Signal system	: CCIR; 625 lines, 50 field, PAL COLOUR signal
Aerial coverage	: STD: V <sub>L</sub> : E2 – E4, V <sub>H</sub> : E5 – E12, U: 21 – 69 CATV: V <sub>L</sub> : X – Z, V <sub>H</sub> : S1 – S20
RF output	: UHF channel 36 (31 – 39 adjustable)
Input level	: 1 V (p-p) 21-pin Euro-connector, 75-ohm unbalanced, sync negative
Output level	: 1 V (p-p) 21-pin Euro-connector, 75-ohm unbalanced, sync negative
<b>AUDIO</b>	
Input level	: –5 dB, more than 10K-ohm, 21-pin Euro-connector
Output level	: –5 dB, less than 1K-ohm, 21-pin Euro-connector
Audio frequency range	: 80Hz to 10kHz
Power source	: 220 V AC, 50Hz
Power consumption	: 28W
Operating temperature	: 5°C to 40°C
Operating humidity	: Less than 80% RH
<b>TIMER</b>	
	: 24 hour digital indication
	: 4 programmes/21 days
Dimensions	: 430mm (W) × 85mm (H) × 348mm (D)
Weight	: 7.4Kg
Accessories	: Aerial cable..... 1 Infrared remote control ..... 1 Batteries (R03) ..... 2

**Note:**

Designs and specifications are subject to change without notice.

# CHANNEL ALLOCATION

The tuner built in this VTR can receive the VHF, UHF and CATV channels 0 to 99 and the receivable channels of this VTR are allocated as listed in the table below.

When presetting the channels, refer to this page together with the page titled "CHANNEL SELECTION" on page 10 and memorize the channels into channel positions (1 to 32) correctly.

VHF	CH NO.	00	01	02	03	04	05	06	07	08	09	10	11	12
	TV Station			E2	E3	E4	E5	E6	E7	E8	E9	E10	E11 *H1	E12 *H2
	CH NO.	13	14	15	16	17	18	19	20					
	TV station	*A	*B	*C	*D	*E	*F	*G	*H					
UHF	CH NO.	21	22	23	24	25	26	27	28	29	30	31	32	33
	TV Station	E21	E22	E23	E24	E25	E26	E27	E28	E29	E30	E31	E32	E33
	CH NO.	34	35	36	37	38	39	40	41	42	43	44	45	46
	TV Station	E34	E35	E36	E37	E38	E39	E40	E41	E42	E43	E44	E45	E46
	CH NO.	47	48	49	50	51	52	53	54	55	56	57	58	59
	TV Station	E47	E48	E49	E50	E51	E52	E53	E54	E55	E56	E57	E58	E59
	CH NO.	60	61	62	63	64	65	66	67	68	69			
	TV Station	E60	E61	E62	E63	E64	E65	E66	E67	E68	E69			
CATV	CH NO.	74	75	76	77	78	79	80	81	82	83	84	85	
	TV Station	X	Y	Z					S1	S2	S3	S4	S5	
	CH NO.	86	87	88	89	90	91	92	93	94	95	96	97	
	TV Station	S6	S7	S8	S9	S10	S11	S12	S13	S14	S15	S16	S17	
	CH NO.	98	99	00										
	TV Station	S18	S19	S20										

\*Italian Stations

Merci pour avoir acheté ce magnétoscope couleur. Cet appareil est basé sur le système VHS pour apprécier pleinement la vidéo à la maison. Avec ce magnétoscope, il est possible d'enregistrer un programme de télévision tout en le regardant, d'enregistrer un programme tout en regardant un autre programme et, avec la minuterie programme sur 21 jours pour 4 programmes, il est possible d'enregistrer des programmes lorsque l'on est absent. Le tuner incorporé et la circuiterie d'enregistrement permet d'enregistrer des émissions PAL et SECAM B/G. Les instructions détaillées se trouvant dans cette brochure expliquent complètement les connexions aussi bien que l'utilisation détaillée des réglages. Inscrive les numéros de modèle et de série qui se trouvent sur l'arrière du magnétoscope, dans l'espace prévu ci-dessous.

Modèle N° \_\_\_\_\_ Série N° \_\_\_\_\_

**Se rappeler des points suivants pour obtenir les meilleures performances et une grande satisfaction de ce magnétoscope**

**Voir s'il est correctement installé avec une antenne adéquate.**

**Le faire vérifier par un service technique régulièrement.**

**S'assurer que tout le monde l'utilise correctement.**

**DE PLUS**

**Ne jamais laisser les enfants insérer quoi que ce soit dans les orifices ou les fentes du coffret. Ceci pourrait provoquer une électrocution.**

**Ne jamais tenter la chance ou essayer quelque chose avec le magnétoscope, il est préférable de jouer la sécurité.**

Cet appareil a été fabriqué pour être en accord avec la "Directive N°82/499/EEC".